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(54) End-capped polyaryl polyethers, articles made therefrom and process for preparing such polyarylene polyethers.

(57) Class of high performance thermosetting materials composed of polyarylene polyether resins having each of their ends capped with a monovalent unsaturated organo radical. The end-capped polyarylene polyether resins have the formula:



wherein Z and Z' are each a monovalent unsaturated organo radical. Usually Z and Z' are alkylene, aralkylene or cycloalkylene moieties. The end-capped polyarylene polyethers can be cured as is or in the presence of one or more unsaturated comonomers to afford homopolymers or copolymers, respectively. Such cured systems exhibit high glass transition temperatures, good tensile properties, excellent electric and alkali resistance and improved stress cracking resistance. End-terminated polysulfone resins having molecular weight of 5,000 to 15,000 are especially advantageous. The properties exhibited by the vinyl/alkyl terminated oligomers are useful in fields which require high temperature performance, excellent solvent resistance and good fabrication characteristics. Specific areas of application include high performance molded products for appliances and electronics, high temperature laminates and adhesives and protective and insulative coatings.



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# EUROPEAN SEARCH REPORT

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Application number

EP 83106348.2

## DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.) 3
X	<p>US - A - 3 763 101 (R. JONES et al.)</p> <p>* Totality, especially claims; column 4, line 74 - column 5, line 5; column 6, lines 16-38; column 5, line 63 - column 6, line 3 *</p>	<p>1-15, 17,19- 21,24- 39,42- 54</p>	<p>C 08 G 75/23 C 08 G 65/48 C 08 L 81/06 C 08 F 283/00 C 08 F 299/00</p>
X	<p>DE - A - 2 057 272 (GENERAL ELECTRIC COMPANY)</p> <p>* Claims 1,3,4,9; example 6; page 5, last paragraph - page 6, first paragraph; page 9, paragraph 2 - page 12, paragraph 2 *</p>	<p>1,2,7, 8,10- 12,14, 17-23, 33,34, 36-42, 47-55</p>	
X,P	<p>DE - A1 - 3 117 514 (BASF AG)</p> <p>* Claims; examples; page 4, paragraph 1; page 5, lines 12-19 *</p>	<p>1,11- 16,24, 42-54</p>	<p>TECHNICAL FIELDS SEARCHED (Int. Cl.) 3</p> <p>C 08 G 75/00 C 08 F 283/00 C 08 F 299/00 C 08 L 81/00 C 08 G 65/00</p>
Y	<p>US - A - 4 296 217 (J. STUART-WEBB)</p> <p>* Claim 1 *</p>	<p>1</p>	
Y	<p>PATENT ABSTRACTS OF JAPAN, unexamined applications, field C, vol. 5, no. 111, July 18, 1981</p> <p>THE PATENT OFFICE JAPANESE GOVERNMENT</p> <p>page 89 C 63</p> <p>* Kokai-no. 56-50 929 (TEIJIN K.K.) *</p>	<p>1</p>	
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 04-06-1985	Examiner KALTENEGGER
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			